

REMARKS

Claims 1-8 are currently pending in the application, as amended. Claims 1 and 4 have been amended to correct informalities. Additionally, claim 1 has been amended to recite that the automatic deadbolt mechanism is for mounting in a mortise of a door in a doorframe with a strike plate and that the predetermined distance is greater than the gap between the mortise and the strike plate when the door is in a closed position and less than a possible length of travel of the auxiliary latch from the retracted auxiliary-latch position toward the extended auxiliary-latch position. Claims 3 and 7, determined by the Examiner to recite allowable subject matter, have been rewritten in independent form. New claim 8 has been added to more particularly point out and distinctly claim that the trigger is configured to enable the deadbolt to be retained in the retracted deadbolt position, when the deadbolt is retracted from the extended deadbolt position to the retracted deadbolt position after the first movement of the deadbolt until the auxiliary latch moves a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position. No new matter has been added.

Claim Objections:

The Examiner has objected to claims 1 and 4 because of informalities. More specifically, the Examiner requires that in claim 1, line 1, "A automatic" be changed to -An automatic-, and in claim 4, line 1, "according to claim 1 be changed to -according to claim 3-. Applicants have amended claims 1 and 4 as required and request that the objection of claims 1 and 4 be withdrawn.

Claim Rejections - 35 U.S.C. § 112:

The Examiner has rejected claim 4 under 35 U.S.C. § 112, 2nd paragraph for indefiniteness. More specifically, the Examiner contends that claim 1 from which claim 4 directly depends does not provide proper antecedent basis for "the trigger lever engaging arm" recited therein. Applicants have amended claim 4 to depend directly from claim 3 which provides the required antecedent for the subject recitation. Accordingly, Applicants respectfully submit that claim 4 is in compliance with 35 U.S.C. § 112, 2nd paragraph and request that the rejection of claim 4 be withdrawn.

Claim Rejections - 35 U.S.C. § 102(b):

The Examiner has rejected claims 1, 5 and 6 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,941,581 (Heithe). The Examiner contends that Heithe discloses an automatic deadbolt mechanism comprising a deadbolt (3) movable between a retracted deadbolt position and an extended deadbolt position and that the deadbolt is biased in the extended deadbolt position by means of the spring (39). Further, the Examiner contends that Heithe discloses an auxiliary latch (5) that is movable between a retracted auxiliary-latch position and an extended auxiliary-latch position and that the auxiliary latch (5) is biased in the extended auxiliary-latch position by means of spring (25). Still further, the Examiner contends that Heithe discloses a trigger (9) that is movable between a first trigger position and a second trigger position, that is biased in the first trigger position by means of spring (13), and that is operatively coupled to the deadbolt (3) and to the auxiliary latch (5).

Referring to Fig. 1, the Examiner avers that Heithe discloses that the trigger is configured to be in the first trigger position when the auxiliary latch is in the extended auxiliary-latch position, and referring to Fig. 4, that the trigger is configured to be in the second trigger position when the auxiliary latch is in the retracted auxiliary-latch position. Without citing the specification or any of the figures therein, the Examiner avers that Heithe discloses that the trigger is configured to cause a first movement of the deadbolt from the retracted deadbolt position to the extended deadbolt position when the trigger moves from the first trigger position to the second trigger position, and to require movement of the auxiliary latch a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position before the trigger is able to cause a second movement of the deadbolt.

Applicants respectfully traverse the rejection of claim 1 under 35 U.S.C. § 102(b) in view of the foregoing amendment.

Claim 1 has been amended to recite, in pertinent part,

An automatic deadbolt mechanism for mounting in a mortise of a door in a doorframe with a strike plate, a gap between the mortise and the strike plate when the door is in a closed position, the automatic deadbolt mechanism comprising:

...

a trigger biased in a first trigger position and movable between the first trigger position and a second trigger position, the trigger operatively coupled to the deadbolt . . . the trigger configured . . . to require movement of the auxiliary latch a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position before the trigger is able to cause a second movement of the deadbolt, the predetermined distance greater than the gap and less than a distance from the retracted auxiliary-latch position to the extended auxiliary-latch position.

Support for the amendment may be found in the specification which provides in paragraph [0039] the following,

the predetermined distance is greater than a gap, if any, that may exist between the edge of the door from which the auxiliary latch 168 is projectable and the strike plate in the doorframe and less than the possible length of travel of the auxiliary latch 168 from the retracted auxiliary-latch position to the extended auxiliary-latch position.

Accordingly, Applicants submit that no new matter has been added by the amendment.

The holdback lever 9 of the Heithe door lock arrangement, which the Examiner contends corresponds to the trigger recited in claim 1, is not configured to require movement of the auxiliary latch the recited predetermined distance before the trigger is able to cause a second movement of the deadbolt.

Referring to Fig. 1, Heithe discloses a door lock arrangement comprising a deadbolt (3), a trigger (5) which corresponds to the auxiliary latch of claim 1, a holdback lever (9) and a trigger bias lever (21). The trigger (5) is operatively coupled to the holdback lever (9) by the trigger bias lever (21). When the trigger (5) is biased in a first position, as shown in Fig. 1, the holdback lever (9) is pivoted clockwise to a first position and the deadbolt (3) is releasably retained in the retracted position by the engagement of a dog (29) of the holdback lever (9) in a lateral serration (31) in the shoulder (30) of the deadbolt (3). Col. 3, ln 24-28. When the trigger (5) is moved to a retracted position by a depression of, or lateral force applied to, the trigger (5), a force from the right (Fig. 1) applied against the trigger bias lever (21) causes the holdback lever (9) to rotate clockwise to a second position disengaging the dog (29) from the lateral serration (31) in the shoulder (30) of the deadbolt (3) permitting the deadbolt (3) to attain a fully extended position as shown in Fig. 4. Col. 3, ln 1-3; ln 43-56.

The triggering mechanism of Heithe is responsive to the slightest movement of the mechanism. For example, when the door is open, the deadbolt (3) is fully retracted, and the trigger (5) is extended out of the faceplate (2) of the casing (1), a slight and/or quick nudge of the trigger (5) will release and partially extend the deadbolt (3), as the spring biased holding lever (9) is sufficiently responsive to cause the dog (29) of the holding lever (9) to engage the first or second serration (31) on the deadbolt (3) preventing a full extension. Col. 5, ln 9-18. Accordingly, Heithe teaches a responsive operative coupling between the holding lever (9), the deadbolt (3) and the trigger (5).

When the Heithe trigger (5) is fully retracted, upon retraction of the deadbolt (3) to the fully retracted position, for example by rotation of the handle (7), the holding lever (9) can not retain the deadbolt (3) in the retracted position as the dog (29) of the holding lever (9) does not engage either the shoulder (30) or one of the serrations (31) on the deadbolt (3). Since Heithe teaches a responsive trigger mechanism upon movement of the trigger (5) toward the extended position, the dog (29) of the holding lever (9) will engage either the shoulder or one of the serrations (31) of the deadbolt (3) before the trigger (5) has moved the predetermined distance recited in claim 1. Accordingly, the holding lever (9) is not configured to require movement of the trigger (5) the predetermined distance recited in claim 1 before the holding lever (9) is able to cause a second movement of the deadbolt and does not teach each and every element of claim 1.

Applicants respectfully traverse the rejection of claim 5, and claim 6 depending therefrom, under 35 U.S.C. § 102(b) in view of the following argument.

Claim 5 recites, in pertinent part,

releasably retaining the deadbolt in the retracted deadbolt position;
and

preventing the deadbolt from being released from the retracted deadbolt position until the auxiliary latch has moved a predetermined distance from a retracted auxiliary-latch position toward an extended auxiliary-latch position.

Heithe does not disclose or teach “preventing the deadbolt from being released . . . until the auxiliary latch has moved a predetermined distance . . . toward an extended auxiliary-latch position.” To the contrary, as discussed above, when the deadbolt (3) of the Heithe device is being releasably retained in the retracted position, “the release of the deadbolt (3) to its extended position is effected by depression of, or lateral force applied to, the trigger (5),” Col. 3, ln 2-3,

even though the trigger (5) has not moved a predetermined distance toward an extended auxiliary latch position. Accordingly, Heithe does not disclose or teach each and every step of claim 5.

For the reasons set forth above, Applicants respectfully request that the rejection of claims 1, 5, and 6 under 35 U.S.C. § 102(b) be withdrawn.

Claim Rejections - 35 U.S.C. § 102(e):

The Examiner has rejected claims 1, 2, 5 and 6 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,578,888 (Fayngersh).

Regarding the rejection of claims 1, 5, and 6, the Examiner contends that Fayngersh discloses an automatic deadbolt mechanism comprising a deadbolt (36) movable between a retracted deadbolt position and an extended deadbolt position and that the deadbolt is biased in the extended deadbolt position by means of the spring 64. Further, the Examiner contends that Fayngersh discloses an auxiliary latch (40) that is movable between a retracted auxiliary-latch position and an extended auxiliary-latch position and that the auxiliary latch (40) is biased in the extended auxiliary-latch position by means of spring 146. Still further, the Examiner contends that Fayngersh discloses a trigger (110) that is biased in a first trigger position by means of spring 134, that is movable between the first trigger position and a second trigger position and that is operatively coupled to the deadbolt and to the auxiliary latch.

Referring to Fig. 2, the Examiner avers that Fayngersh discloses that the trigger is configured to be in the first trigger position when the auxiliary latch is in the extended auxiliary-latch position, and referring to Figs 3-4, that the trigger is configured to be in the second trigger position when the auxiliary latch is in the retracted auxiliary-latch position. Without citing the specification or any of the figures therein, the Examiner avers that Fayngersh discloses that the trigger is configured to cause a first movement of the deadbolt from the retracted deadbolt position to the extended deadbolt position when the trigger moves from the first trigger position to the second trigger position, and to require movement of the auxiliary latch a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position before the trigger is able to cause a second movement of the deadbolt.

Applicants believe that the Examiner has improperly identified the deadlocking lever 110 of the Fayngersh automatic deadbolt mechanism as the structure corresponding to the trigger recited in claims 1, 2, 5, and 6 and also has mischaracterized the manner in which the

deadlocking lever 110 functions. Accordingly, Applicants respectfully traverse the rejection of claims 1, 2, 5 and 6 under 35 U.S.C. § 102(e) with the following argument.

Claim 1 recites, in pertinent part,

An automatic deadbolt mechanism for mounting in a mortise of a door in a doorframe with a strike plate, a gap between the mortise and the strike plate when the door is in a closed position, the automatic deadbolt mechanism comprising:

...

a trigger biased in a first trigger position and movable between the first trigger position and a second trigger position, the trigger operatively coupled to the deadbolt . . . the trigger configured . . . to cause a first movement of the deadbolt from the retracted deadbolt position to the extended deadbolt position when the trigger moves from the first trigger position to the second trigger position, and to require movement of the auxiliary latch a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position before the trigger is able to cause a second movement of the deadbolt, the predetermined distance greater than the gap and less than a distance from the retracted auxiliary-latch position to the extended auxiliary-latch position.

The deadlocking lever 110 of the Fayngersh automatic deadbolt mechanism, which the Examiner contends corresponds to the trigger recited in claim 1, is not configured to cause a first movement of the deadbolt from the retracted deadbolt position to the extended deadbolt position.

Referring to Figs. 2 and 10, Fayngersh discloses a means for deadlocking a latch bolt 38 comprising an auxiliary bolt 40, the deadlocking lever 110 and an auxiliary latch lever 112. Col. 5, ln 28-31. The deadlocking lever 110 has a shaft 126 which is rotatably received in a hollow cylindrical post projecting from the case side wall 26 of the mortise lock. Col. 5, ln 42-44. A torsion spring 134 fits over the post about which the deadlocking lever 110 rotates. One end of the torsion spring engages the spring flange 98 of the latch bolt 38 and the other end engages a lip 122 on the deadlocking lever 110 biasing the deadlocking lever 110 in a counter-clockwise direction to a first position where a blocking surface 120 of the deadlocking lever 110 is rearward of and in the path of the latch bolt 38. Col. 5, ln 47-53. The deadlocking lever 110 is retained in a second position out of the path of the latch bolt 38 by a camming pin 136 on the auxiliary latch lever 112 when the auxiliary bolt 40 is in the projected position. Col. 6, ln 1-5.

The movement of the deadlocking lever 110 from the first position to the second position does not cause any movement of the deadbolt 38. Further, the deadlocking lever 110 of the Fayngersh is not configured to require movement of the auxiliary latch the recited predetermined distance before the deadlocking lever is able to cause a second movement of the deadbolt.

Independent claim 5 recites, in pertinent part,

preventing the deadbolt from being released from the retracted deadbolt position until the auxiliary latch has moved a predetermined distance from a retracted auxiliary-latch position toward an extended auxiliary-latch position.

Applicants agree with the Examiner contention that Fayngersh discloses an auxiliary latch (40) that is movable between a retracted auxiliary-latch position and an extended auxiliary-latch position and that the auxiliary latch (40) is biased in the extended auxiliary-latch position by means of spring 146. However, Applicants disagree with the Examiner's contention that Fayngersh discloses the preventing step recited in claim 5.

Referring to Figs. 4, 9, and 10, and Col. 7, ln 43-60, Fayngersh teaches that when the auxiliary latch (40) is in the retracted position, the auxiliary latch lever 112 is rotated to a counter clockwise position and the deadbolt release lever 150 is rotated to a clockwise position. In the clockwise position, the deadbolt release lever 150 prevents the deadbolt stop lever 68 from being seated over a lug 86 on the tail piece 46 of the deadbolt 36 and the deadbolt 36 from being retained in the retracted deadbolt position. Accordingly, the Fayngersh automatic deadbolt mechanism does not disclose any structure for "preventing the deadbolt from being released from the retracted deadbolt position until the auxiliary latch has moved a predetermined distance from a retracted auxiliary-latch position toward an extended auxiliary-latch position performing the preventing step.

In view of the above remarks, Applicants respectfully submit Fayngersh does not disclose each and every element of claims 1 and 5 and that the rejection of claims 1 and 5 are improper. Accordingly, Applicants respectfully request that the rejection of claim 1, claim 2 depending from claim 1, claim 5, and claim 6 depending from claim 5 be withdrawn.

Allowable Subject Matter

The Examiner has objected to claims 3 and 7 as being dependent upon a rejected base claim, but has determined that the claims would be allowable if rewritten in independent form.

Applicants have rewritten claims 3 and 7 in independent form and have amended claim 4 to depend from claim 3. Accordingly, Applicants respectfully submit that claims 3, 4, and 7 are in condition for allowance.

New Claims

Applicant has added new claim 8 to more particularly point out and distinctly claim that the trigger is configured “to enable the deadbolt to be retained in the retracted deadbolt position, when the deadbolt is retracted from the extended deadbolt position to the retracted deadbolt position after the first movement of the deadbolt until the auxiliary latch moves a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position.”

Support for the additional trigger feature recited in claim 8 is provided by Figs. 7a-7d and paragraph [0050] of the specification which provides

Referring to Fig. 7d, the configuration shown therein corresponds to the configuration that the components of the deadbolt mechanism 100 have when a room occupant has turned a latch operator (not shown) such as an inside door knob operatively coupled to the hub lever 154 (Fig. 2-3) to fully retracted the deadbolt 104 to open a closed door and has released the door knob before the auxiliary latch 168 clears in its entirety the strike plate. Under these circumstances, the deadbolt 104 is retained in the retracted deadbolt position by the deadbolt holding lever 118 and the release lever 160 is in the first release-lever position. The auxiliary latch 168 has partially extended allowing the trigger 166 to pivot in a clockwise direction from the second trigger position toward the first trigger position in response to the force applied by the trigger-lever torsion spring 182. The trigger lever 180 has pivoted in a counter clockwise direction from the first trigger-lever position toward the second trigger-lever position as the release lever engaging end 186 of the trigger lever 180 will not clear the trigger engaging arm 164 until the auxiliary latch 168 extends further, and preferably fully extends to the first auxiliary-latch position as shown in Fig. 7a.

Applicants submit that claim 8 is patentable over Heithe and Fayngersh as neither reference discloses a trigger configured “to enable the deadbolt to be retained in the retracted deadbolt position . . . until the auxiliary latch moves a predetermined distance from the retracted auxiliary-latch position toward the extended auxiliary-latch position.”

CONCLUSION

In view of the foregoing Amendment and remarks, Applicants respectfully submit that the present application, including claims 1-8, is in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

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